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TECHNICAL SPECIFICATION

LTE;
Telecommunication management;
Life Cycle Management (LCM)
for mobile networks that include virtualized network functions;
Stage 3
(3GPP TS 28.528 version 17.0.0 Release 17)

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00   Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

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Contents

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

    x   the first digit:

        1   presented to TSG for information;

        2   presented to TSG for approval;

        3   or greater indicates TSG approved document under change control.

    y   the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

    z   the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

The present document is part of a TS-family covering the 3rd Generation Partnership Project Technical Specification Group Services and System Aspects, Telecommunication Management; as identified below:

TS 28.525:   Telecommunication management; Life Cycle Management (LCM) for mobile networks that include virtualized network functions; Requirements

TS 28.526:   Telecommunication management; Life Cycle Management (LCM) for mobile networks that include virtualized network functions; Procedures

TS 28.527:   Telecommunication management; Life Cycle Management (LCM) for mobile networks that include virtualized network functions; Stage 2

TS 28.528:   Telecommunication management; Life Cycle Management (LCM) for mobile networks that include virtualized network functions; Stage 3

1 Scope

The present document is the Life Cycle Management (LCM) stage 3 specification for mobile networks that include virtualized network functions.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1]   3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2]   3GPP TS 28.500: "Telecommunication management; Concept, architecture and requirements for mobile networks that include virtualized network functions".

[3]   ETSI GS NFV-SOL 002 (V2.3.1): "Network Function Virtualisation (NFV) Release 2; Protocols and Data Models; RESTful protocols specification for the Ve-Vnfm Reference Point".

[4]   ETSI GS NFV-SOL 005 (V2.5.1): "Network Functions Virtualisation (NFV); Protocols and Data Models; RESTful protocols specification for the Os-Ma-Nfvo Reference Point".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1], 3GPP TS 28.500 [2] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1] or in 3GPP TS 28.500 [2].

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1], 3GPP TS 28.500 [2] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1] or in 3GPP TS 28.500 [2].

4 Data model and interface definitions

4.1 Os-Ma-nfvo

For Os-Ma-nfvo NSD management, the following shall be used:

- the RESTful API URI structure and supported content formats specified in clause 4.2 of ETSI GS NFV-SOL 005 [4], and

- the RESTful API common procedures specified in clause 4.3 of ETSI GS NFV-SOL 005 [4], and

- the RESTful API common data types specified in clause 4.4 of ETSI GS NFV-SOL 005 [4], and

- the NSD management RESTful API resource structure, methods, resources and data model specified in clause 5 of ETSI GS NFV-SOL 005 [4].

For Os-Ma-nfvo NS lifecycle management, the following shall be used:

- the RESTful API URI structure and supported content formats specified in clause 4.2 of ETSI GS NFV-SOL 005 [4], and

- the RESTful API common procedures specified in clause 4.3 of ETSI GS NFV-SOL 005 [4], and

- the RESTful API common data types specified in clause 4.4 of ETSI GS NFV-SOL 005 [4], and

- the NS LCM RESTful API resource structure, methods, resources and data model specified in clause 6 of ETSI GS NFV-SOL 005 [4].

For Os-Ma-nfvo NS lifecycle change notification, the following shall be used:

- the RESTful API URI structure and supported content formats specified in clause 4.2 of ETSI GS NFV-SOL 005 [4], and

- the RESTful API common procedures specified in clause 4.3 of ETSI GS NFV-SOL 005 [4], and

- the RESTful API common data types specified in clause 4.4 of ETSI GS NFV-SOL 005 [4], and

- the NS lifecycle change notification RESTful API resource structure, methods, resources and data model specified in clause 7 of ETSI GS NFV-SOL 005 [4].

For Os-Ma-nfvo VNF package management, the following shall be used:

- the RESTful API URI structure and supported content formats specified in clause 4.2 of ETSI GS NFV-SOL 005 [4], and

- the RESTful API common procedures specified in clause 4.3 of ETSI GS NFV-SOL 005 [4], and

- the RESTful API common data types specified in clause 4.4 of ETSI GS NFV-SOL 005 [4], and

- the VNF package management RESTful API resource structure, methods, resources and data model specified in clause 10 of ETSI GS NFV-SOL 005 [4].

4.2 Ve-Vnfm-em

For Ve-Vnfm-em VNF lifecycle management, the following shall be used:

- the RESTful API URI structure and supported content formats specified in clause 4.2 of ETSI GS NFV-SOL 002 [3], and

- the RESTful API common procedures specified in clause 4.3 of ETSI GS NFV-SOL 002 [3], and

- the RESTful API common data types specified in clause 4.4 of ETSI GS NFV-SOL 002 [3], and

- the VNF LCM RESTful API resource structure, methods, resources, data model and handling of errors specified in clause 5 of ETSI GS NFV-SOL 002 [3].

Annex A (informative):
Change history

Change history							
Date	**Meeting**	**TDoc**	**CR**	**Rev**	**Cat**	**Subject/Comment**	**New version**
2018-01	SA#78	SP-170964	0001	1	F	Update the references to ETSI NFV SOL specifications	14.1.0
2018-06	SA#80	SP-180417	0002	1	B	Scope extension to cover RAN	15.0.0
2018-12	SA#82	SP-181041	0003	-	F	Fix outdated reference	15.1.0
2020-07	-	-	-	-	-	Update to Rel-16 version (MCC)	**16.0.0**
2022-03	-	-	-	-	-	Update to Rel-17 version (MCC)	**17.0.0**

History

Document history		
V17.0.0	April 2022	Publication